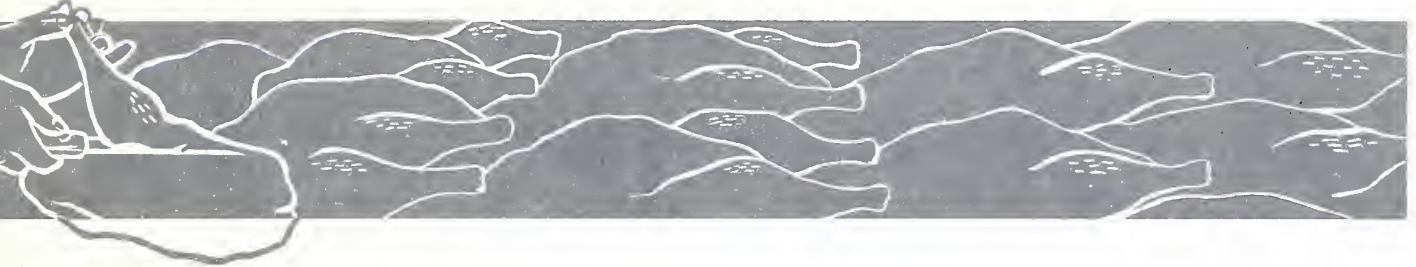


Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

A 280.39
M 34A m
Cop. 2



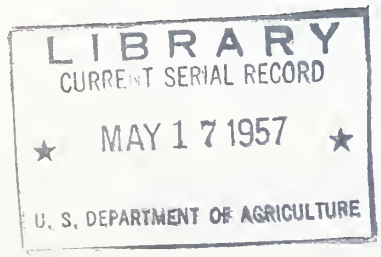
Availability of Fresh or Frozen Ready-to-Cook Poultry

By Humbert Scott Kahle

Farmers in the United States sold more than 6 billion pounds, live weight, of poultry in 1955. About 75 percent of this was slaughtered in commercial poultry slaughtering plants. The birds were processed in these plants in several forms to satisfy the diversified wants of more than 167 million consumers. Some birds were sold fresh and chilled (generally ice-packed); others were frozen; some were eviscerated (ready-to-cook); others were New York dressed (only the blood and feathers removed); some had been inspected for wholesomeness by the U. S. Department of Agriculture or by State or municipal agencies; others were sold without official inspection.

About 88 percent of the 4.3 billion pounds of live poultry slaughtered in commercial plants was eviscerated or ready-to-cook, and slightly more than a third was processed under inspection by the U. S. Department of Agriculture. About 30 percent of the total slaughter was frozen at processing plants, most of which were operating under Federal inspection.

It is expected that the trend toward ready-to-cook products will continue until practically all poultry is marketed in this form. During the last 10 years, progress in this direction has been rapid. During these years, there also has been a rapid growth in the freezing of poultry in ready-to-cook form. Further increases in the proportion of poultry frozen may come, but a continuation of past trends is not assured.



U. S. DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Marketing Research Division

OUTLOOK FOR FROZEN POULTRY UNCERTAIN

There has been a strong trend toward the frozen eviscerated product. According to trade estimates 1/, frozen poultry production has expanded rapidly during the past decade. The following industry estimates for 1955 are relatively close to those shown in table 1.

<u>Year</u>	<u>Million pounds</u>	<u>Year</u>	<u>Million pounds</u>
1946	170	1951	582
1947	130	1952	800
1948	150	1953	850
1949	224	1954	900
1950	411	1955	875

During the last 4 years shown, there has been a tendency for the volume of frozen poultry to reach some degree of stability. Further increases in the volume of frozen poultry are probable but marked increases in the proportion of the total slaughter to be marketed in frozen form are not anticipated.

Among several recent developments in poultry production and marketing that tend to reduce the need for freezing are: (1) The fryer-type turkey, providing birds on a year-round basis and reducing the need for freezing; (2) antibiotics which lengthen the shelf life of poultry; (3) highly integrated chain store operations, which facilitate distribution of fresh, iced poultry and reduce the need for the frozen product; and (4) improvements in processing and transportation which speed up marketing and reduce the need for freezing. Currently, markups on frozen poultry are higher than those taken on the fresh product. This probably serves to limit demand for the frozen pack.

Freezing is often used to convert poultry into storable form during periods of low prices. Such periods may result from sharp increases in production or seasonal decreases in demand. The future of this type of freezing operation, therefore, will depend upon the extent to which production can be kept in adjustment with current demand or upon whether it is cheaper to freeze than to make such adjustments.

One area in which frozen poultry is likely to expand is that of fully prepared foods, such as chicken dinners, turkey dinners, and other pre-cooked poultry. It is not expected, however, that such products will absorb a major part of the national production of poultry.

In order to determine the availability of frozen and ready-to-cook poultry and establish a basing point from which future trends may be

1/ 1956 Frozen Food Fact Book and Directory.

measured, the Agricultural Marketing Service recently surveyed the poultry industry. Table 1 summarizes some of the estimates, based on data from the survey and the AMS Commercial Poultry Slaughter Report.

Table 1.--Poultry: Commercial slaughter and quantities frozen, by classes, 1955

Class of poultry:	Quantity slaughtered	Frozen		
		Quantity	Quantity	Percentage of total slaughter
	Million pounds live weight	Million pounds live weight	Million pounds eviscerated wt.	Percent
Broilers and other young chickens	2,973	357	257	12
Mature chickens.	527	237	173	45
Turkeys	743	609	485	82
Ducks and geese.	44	29	21	66
All poultry ..	4,287	1,232	936	29

Turkeys Lead in Frozen Field

Relatively more turkeys were frozen than of other classes of poultry. This was the result of (1) the highly seasonal nature of turkey production, (2) the short marketing season, mainly November and December, (3) economies in slaughtering plants resulting from spreading the total load on processing crews and facilities over a longer period, and (4) concentration of production in a few areas at great distances from major markets. Some of these same factors may also be responsible for the freezing of a high percentage of ducks and mature chickens slaughtered in commercial plants in 1955.

In contrast, only a small percentage of the commercial slaughter of broilers and other young chickens was frozen. Broiler production and marketing vary little seasonally. Freezing of broilers appears to be limited largely to a few large commercial plants with nationally advertised brands or to plants packing for well known distributors. Some freezing is done occasionally by plants that wish to store poultry until prices become more favorable. Some freezing also is done to preserve poultry in transit, but much of this poultry probably is sold to consumers in thawed form.

Most Poultry Is Ready-to-Cook But Not All Is Inspected

An average of 88 percent of all poultry is eviscerated in slaughtering plants 2/. This ranges from 65 percent for ducks and geese to 95 percent for turkeys. Approximately one-third of the poultry processed in commercial plants is inspected for wholesomeness by the USDA. Table 2 indicates the great variations among classes of poultry in the use of inspection services.

Table 2.--Poultry: Proportion slaughtered under USDA inspection, compared to noninspected portions, by classes, July - December 1955

Class of poultry :	: Ready-to-cook or eviscerated :		: New York dressed <u>1/</u>
	: USDA inspected :	: Not inspected :	
:	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
Broilers and other:			
young chickens ..:	20.4	66.6	13.0
Mature chickens ..:	50.5	31.1	18.4
Turkeys	74.3	20.6	5.1
Ducks and geese ..:	20.2	44.3	35.5
All poultry:			
Six months	36.4	51.5	12.1
Year	<u>2/</u> 33.5	<u>2/</u> 54.0	<u>2/</u> 12.5

1/ Not eligible for USDA inspection for wholesomeness.

2/ Adjusted for seasonality of production.

For young chickens and ducks and geese, the quantity inspected amounts to about one-fifth of the volume slaughtered. About half of the mature chickens and three-fourths of the turkeys are slaughtered under USDA inspection.

Production of New York dressed poultry is relatively small. Although only 12.5 percent of the total output of commercial poultry plants in the last half of 1955 was New York dressed, more than 35 percent of the commercial slaughter of ducks and geese was in this form (table 2). This is attributable to the practice of New York dressing for later evisceration in specialized evisceration plants, retail stores, and meat markets. Regionally,

2/ The proportion of poultry reaching consumers in ready-to-cook form is larger than 88 percent, since most of the New York dressed birds leaving slaughtering plants are eviscerated either in retail stores or specialized eviscerating establishments not included in the survey.

New York dressing is important only in New England, where in the last half of 1955, 60 to 70 percent of the chickens and turkeys were New York dressed (computed from table 4).

USDA Inspection is Important to Freezers

Most of the poultry products frozen by commercial plants in 1955 was processed under USDA inspection for sanitation and wholesomeness. In contrast, comparatively small quantities of fresh poultry were inspected for wholesomeness by the USDA (fig. 1).

Evisceration Replaces New York Dressing

A sharp trend among poultry slaughterers toward evisceration took place between 1947 and 1955 (fig. 2). Eviscerated poultry, for example, constituted only 24 percent of the reported poultry slaughter in 1947, but the proportions rose to 73 percent in 1954. The above trends are based on Census returns from 533 poultry dressing plants in 1947 and 1,308 plants in 1954. Perhaps only about half of these plants would be classed as commercial ^{3/} plants by the USDA. A comparison of figure 2 with table 2, therefore, suggests that the trend toward evisceration is stronger in larger plants than in smaller ones. Only 13 percent of the broilers produced in commercial plants, for example, were New York dressed in 1955.

Regional Practices in Processing

Estimates of volumes of poultry packed by region, by class, and by method of preparation and preservation are available (table 4) for the last 6 months of 1955 only. During these 6 months, however, about 54 percent of the total 1955 volume of broilers, 67 percent of the hens and cocks, 87 percent of the turkeys, and 54 percent of the ducks were slaughtered.

Freezing of poultry is more common in the West North Central region than in the Middle Atlantic and South Atlantic regions (table 3). The reason for this variation in the proportion frozen is not brought out by the study. It is believed, however, that more freezing is to be expected when marketings are seasonal or when major markets are located outside the producing areas. The Middle Atlantic and South Atlantic regions specialize in broilers, a class of poultry with small seasonal variations in marketings. Marketing of mature chickens or turkeys is done locally in these regions.

^{3/} For definition, see footnote 1, table 4.

By Classes

POULTRY INSPECTED, 1955

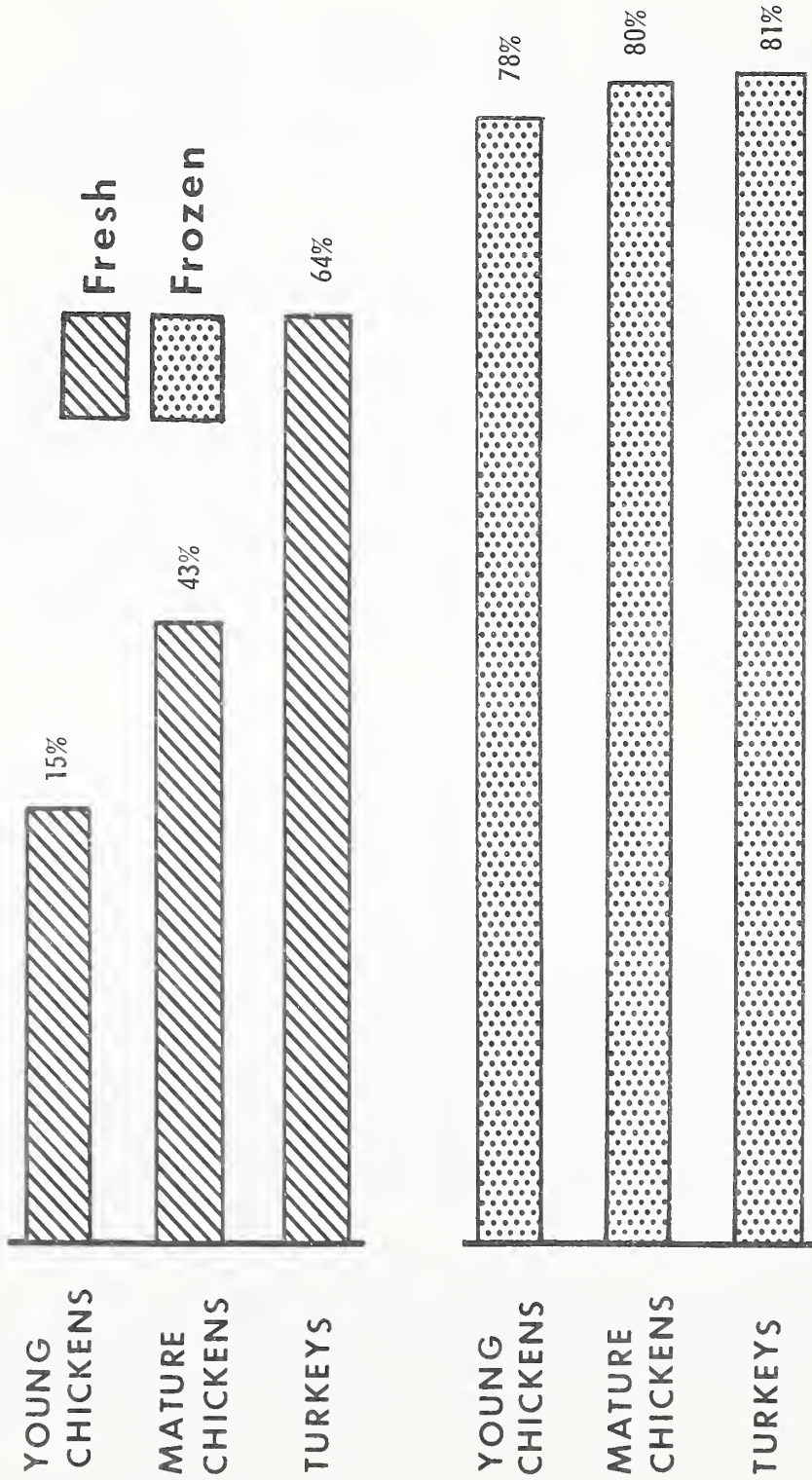
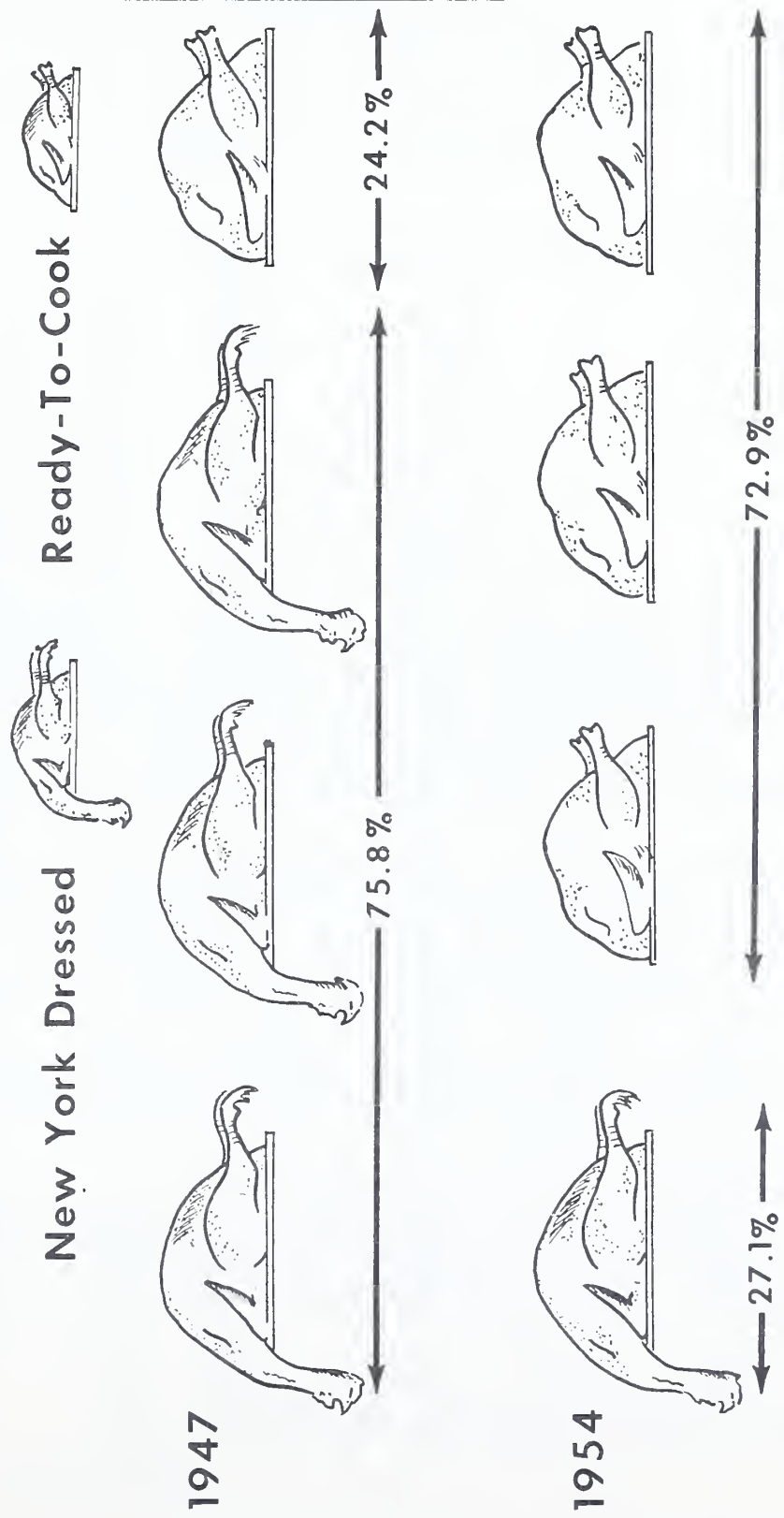


Figure 1

New York Dressed and Ready-To-Cook

TRENDS IN DRESSED POULTRY



CHICKENS AND TURKEYS COMBINED

Figure 2

Table 3.--Percentage of total slaughter offered for sale as frozen ready-to-cook poultry, U. S. and regions, July - December 1955

Region	: Broilers, fryers : : and roasters : Hens and cocks :			Turkeys
	Percent	Percent	Percent	
United States	12	43	81	
New England	-	-	-	
Middle Atlantic	11	8	33	
East North Central ..	5	36	83	
West North Central ..	39	70	91	
South Atlantic	11	23	51	
East South Central ..	5	25	60	
West South Central ..	25	49	90	
Mountain	1	-	87	
Pacific	4	27	80	

Methods Used in Analysis

Data for this report were compiled from records of the Marketing Research Division, Agricultural Marketing Service, USDA, from questionnaires completed in a special survey of poultry plants conducted in April and May 1956, and from information obtained from the Poultry Division, AMS, covering the volume of poultry inspected by the USDA Inspection Service. Their data cover the period of July to December 1955. Data for figure 2 was obtained from the 1954 Census of Manufacturers, May 1956, Series MC-20-1.2.

In preparing the estimates, consideration was given to variations in response region by region, and the volume reported was expanded to approximate the volume produced in all commercial plants, whether they responded or not. This expansion was based on information regarding the number and size of poultry plants in each region made available by research leading to development of the Commercial Poultry Slaughter Report 4/.

Since information is available for each plant under USDA inspection, the expansion of reported volumes involved only noninspected plants.

4/ This research was conducted under the leadership of Fred L. Faber of AMS. The author gratefully acknowledges his development of methodology and his assistance in its application to this analysis.

Table 4.--Poultry: Quantity slaughtered in commercial plants for marketing in fresh and frozen form, and amounts New York dressed and eviscerated, by regions and United States, July-December 1955 1/

Region and commodity	Fresh		Frozen		Total
	New York dressed	Eviscerated	New York dressed	Eviscerated	All packs
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
New England:					
Young chickens	90.3	58.0	-	-	148.3
Hens and cocks	22.4	9.9	-	0.1	32.4
Turkeys .....	.7	.4	-	-	1.1
Ducks and geese	-	-	-	.4	.4
Total	113.4	68.3	-	.5	182.2
Middle Atlantic:					
Young chickens	5.2	86.8	0.2	11.2	103.4
Hens and cocks	13.9	10.7	2/	2.1	26.7
Turkeys .....	.7	2.5	.1	1.6	4.9
Ducks and geese	7.4	.2	1.0	8.6	17.2
Total	27.2	100.2	1.3	23.5	152.2
East North Central:					
Young chickens	5.9	86.7	-	5.3	97.9
Hens and cocks	10.8	34.2	1.4	26.4	72.8
Turkeys .....	.2	8.3	-	40.0	48.5
Ducks and geese	2/	.5	-	1.6	2.1
Total	16.9	129.7	1.4	73.3	221.3
West North Central:					
Young chickens .....	.6	42.3	.1	27.4	70.4
Hens and cocks	2.7	36.2	4.4	100.5	143.8
Turkeys	7.2	12.2	.1	201.9	221.4
Ducks and geese	2/	2/	-	1.8	1.8
Total	10.5	90.7	4.6	331.6	437.4
South Atlantic:					
Young chickens	93.8	547.3	.6	80.1	721.8
Hens and cocks .....	.3	21.4	2/	6.5	28.2
Turkeys	16.4	20.3	.8	38.8	76.3
Ducks and geese	-	-	-	.2	.2
Total	110.5	589.0	1.4	125.6	826.5

Continued

See footnotes at end of table.

Table 4.--Poultry: Quantity slaughtered in commercial plants for marketing in fresh and frozen form, and amounts New York dressed and eviscerated, by regions and United States, July-December 1955 ^{1/} -- Continued

Region and commodity	Fresh		Frozen		Total
	New York dressed	Eviscerated	New York dressed	Eviscerated	All packs
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
East South Central:					
Young chickens	-	188.2	-	9.2	197.4
Hens and cocks	-	5.9	2.0	2.6	10.5
Turkeys	-	.9	3.1	6.0	10.0
Ducks and geese	-	<u>2/</u>	-	<u>2/</u>	<u>2/</u>
Total	-	195.0	5.1	17.8	217.9
West South Central:					
Young chickens	4.9	156.2	-	53.9	215.0
Hens and cocks .....	.5	5.5	.2	5.9	12.1
Turkeys .....	.7	4.0	1.5	53.5	59.7
Ducks and geese	-	<u>2/</u>	<u>2/</u>	<u>2/</u>	<u>2/</u>
Total	6.1	165.7	1.7	113.3	286.8
Mountain:					
Young chickens	-	1.5	<u>2/</u>	<u>2/</u>	1.5
Hens and cocks	-	2.1	-	<u>2/</u>	2.1
Turkeys	-	7.4	-	48.4	55.8
Ducks and geese	-	-	-	1.7	1.7
Total	-	11.0	<u>2/</u>	50.1	61.1
Pacific:					
Young chickens	6.7	40.0	.4	2.1	49.2
Hens and cocks	4.2	11.9	2.3	6.6	25.0
Turkeys	1.5	31.4	<u>2/</u>	132.6	165.5
Ducks and geese	-	<u>2/</u>	-	.3	.3
Total	12.4	83.3	2.7	141.6	240.0
United States:					
Young chickens	207.4	1207.0	1.3	189.2	1604.9
Hens and cocks	54.8	137.8	10.3	150.7	353.6
Turkeys	27.4	87.4	5.6	522.8	643.2
Ducks and geese	7.4	.7	1.0	14.6	23.7
Total	297.0	1432.9	18.2	877.3	2625.4

^{1/} The quantities shown agree with the quantities given in the weekly Commercial Poultry Slaughter Report. For purposes of this report a commercial poultry slaughter plant is defined as a plant which slaughters at least 30,000 pounds live weight per week on the average while in operation.

^{2/} Less than .05 million pounds.

